



GIVEN: PENTAGON EQUIANGULAR
($n=5$)

OCTAGON EQUIANGULAR
($n=8$)

$e-?$ $g-?$ $h-?$ $f-?$

$$\begin{aligned} \text{SUM OF INTERNAL ANGLES OF PENTAGON } (n-2)180^\circ &= \\ &= (5-2)180^\circ = 3 \cdot 180^\circ = 540^\circ \end{aligned}$$

$$\begin{aligned} \text{SUM OF INTERNAL ANGLES OF OCTAGON } (n-2)180^\circ &= \\ &= (8-2)180^\circ = 6 \cdot 180^\circ = 1080^\circ \end{aligned}$$

$$(1p) \ m \angle 1 \text{ (PENTAGON)} = \frac{540^\circ}{5} = 108^\circ$$

$$(1p) \ m \angle 2 \text{ (OCTAGON)} = \frac{1080^\circ}{8} = 135^\circ$$

$\angle e$ AND $\angle 1$ ARE SUPPLEMENTARY

$$(1p) \ m \angle e = 180^\circ - m \angle 1 = 180^\circ - 108^\circ = \underline{72^\circ}$$

$$(1p) \ m \angle f = 180^\circ - 135^\circ = \underline{45^\circ}$$

$$(1p) \ m \angle g = 360^\circ - (108^\circ + 135^\circ) = 360^\circ - 243^\circ = \underline{117^\circ}$$

$$(1p) \ m \angle h = 360^\circ - (72^\circ + 45^\circ + 117^\circ) = 360^\circ - 234^\circ = \underline{126^\circ}$$